

Appl. No. 10/040,092  
Amdt. dated 02 Mar 04  
Reply to Office action of 02 Dec 03

REMARKS

Claims 1-3, 8-13, and 16-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,793,400 to Wood and further in view of either JP 9-29,393 ("JP '393") or JP 9-29,394 ("JP '394"); claims 4-7, 14-15, and 18-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wood further in view of either JP '393 or JP '394 as applied in claim 1 above and further in view of either U.S. Patent No. 3,795,025 to Sadamitsu or U.S. Patent No. 4,530,597 to Itaya et al. (Office Action, pp. 2-3.)

In the Office Action dated 02 December 2003, it is asserted that while Wood substantially shows the invention as claimed, with the exception that each brush is not moved independently from the other, it would have been obvious to combine Wood with either JP '393 or JP '394, both of which do disclose the movement of each brush independently from the other brush in order to achieve the advantage of cleaning the roll without damaging the roll surface. Applicants respectfully disagree.

None of the references contains any suggestion or motivation to combine Wood with either JP '393 or JP '394. *See In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir 1999) (showing of combinability must be "clear and particular"). Rather, JP '393 and JP '394 actually teach away from the currently claimed invention for a number of reasons. First, for example, JP '394 teaches away from the currently claimed invention in that it focuses on the roll application rate R as defined therein, rather than on the brushes being different and independent brushes. (JP '394 Translation, p. 10, ll. 15-21.) Indeed, although the use of two different rolls is disclosed in JP '394, the reference expressly provides that "the same roll may be employed at both stages." (JP '394 Translation, p. 16, l. 12.) By acknowledging that a single roll may be used, JP '394 teaches away from the presently claimed invention. So, too, there is no suggestion to combine Wood and JP '393. Therefore, not only is there no suggestion or motivation, particular or otherwise, to combine Wood with JP '393 and/or JP '394, but there is teaching away from such combination as seen below.

Second, none of the cited references disclose, teach, or suggest the presently claimed limitation that the sweeper brush, or the initial brush to contact the casting rolls, contact the rolls ahead of the main or second brush to contact the rolls. In Wood, as noted, the brushes are in use at the same time. In JP '393 and JP '394, the brush roll 5 operated at the initial stage of the casting operation is behind the brush roll 6 operated during the casting operation. In the presently claimed subject matter, the sweeper brush 23 which is operated at

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the beginning and ending of the casting operation is positioned in advance of the main brush 22 relative to the casting surface of the casting roll.

Third, the presently claimed subject matter requires that the sweeper brush 23 rotate in a direction opposite to the surface movement of the casting roll. In contrast, in JP '393 and '394, the brush which is employed in the initial stage of the casting is driven to rotate in the same direction as the surface of the movement of the casting roll. This is directly opposite to the movement of the sweeper brush in the presently claimed subject matter and, rather than adopting, directly ignores the operation disclosed in Wood. Further, the brush roll that is operated during the casting operation in the JP '393 and '394 apparatus also rotates in the direction of the surface and movement of the casting roll; this is opposite to the requirement of dependant claim 9 in the presently claimed subject matter.

Finally, whereas the currently claimed sweeper brush engages the casting roll "near the beginning and **end** of each casting run," the initial brush in JP '393 and JP '394 contact the casting roll only at the beginning of the casting run. Moreover, even if there were clear and particular impetus to combine Wood with either JP '393 and JP '394, which there is not, there is no teaching or suggestion in Wood to disengage either of its sweeper brushes during the casting run. Rather, and contrary to present invention, the brushes 18 and 20 in Wood are moved into contact with the casting roll in unison and both brushes are intended to be operated in unison in contact with the casting roll throughout normal casting operation. So, none of the references alone or in combination teach, disclose or suggest engaging one brush at the beginning of the casting run, disengaging that brush during the casting run, and then re-engaging that brush at the end of the casting run as required by the presently claimed invention. Therefore, none of Wood, JP '393 or JP '394, alone or in combination, teach or suggest the presently claimed invention of engaging the sweeper brush with the "casting roll near the beginning and **end** of each casting run" and disengaging that same sweeper brush "from the casting roll during normal casting operation."

Thus, just as JP '393 and JP '394 teach away from the present invention, so too does Wood, as discussed in prior submissions. As previously discussed herein and in prior submissions, there is no disclosure or suggestion in Wood of providing two brushes of different character to perform different functions in cleaning the casting surfaces of the casting roll at different times during the casting operation. Therefore, to be sure, Wood is remote prior art from the presently claimed invention which has two brushes of different character: one, a main brush, and the other a sweeper brush. Moreover, in the claimed

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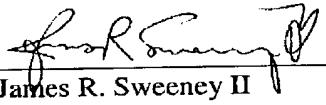
subject matter, the sweeper brush is positioned to contact the casting roll surface of the casting roll during the initial stages in advance of the position of the main brush relative to the casting surface of the casting roll. This is not disclosed or suggested by Wood. Further, as previously pointed out, there is no mechanism for the main brush and/or the sweeper brush to move independently into engagement with the casting roll surfaces of the casting roll.

Secondary references Sadamitsu and Itaya et al. are even more remote prior art. Sadamitsu discloses a photoreceptor cleaning apparatus for an electrophotographic apparatus having a pair of rotating brushes enclosed within a brush box and engaging the photo sensitive drum. The brushes counter-rotate and the material is sweep from the photo sensitive drum is sweep away from the brushes through a filtering bag within a suction box. Again, in Sadamitsu there are identical brushes that counter-rotate, and no suggestion of brushes of different characteristics to be used during different times in the operation of the apparatus. Itaya et al. discloses a large brush cleaning device for an electrophotographic reproduction apparatus wherein a fur brush is contacted as the image receptor for removing electromagnetic toner. In Itaya et al., there is only one brush. None of the features deficient from Wood are disclosed or suggested by either of these secondary references. Moreover, there is no clear and particular suggestion to combine these references in any event.

Applicants respectfully submit that presented claims 1-19 are in condition for allowance and should be allowed with the application passed to issue. The cited references teach away from and are remote prior art from the presently claimed subject matter. While it is believed that no fees are due in conjunction with this submission, Applicants now authorize the commissioner to charge any fees that may be due, and/or to credit any overpayment in fees, to the Account of Barnes & Thornburg, Deposit Account No. 10-0435, with reference to our matter 29385-68773.

Respectfully,

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